



Keeping the lights on: The role of a power station operator during a global pandemic

Shammus Sultan, a shift operations technician at RWE's Didcot B Power Station, talks about his role and experience as a key worker.

In these strange times, the energy sector remains a cornerstone of infrastructure and arguably more important than ever - this is why I joined this industry. I wanted to be in a role that makes a difference to the society we live in and after graduating with a chemical engineering degree I joined RWE's graduate scheme. During the two-year scheme, I was entrusted with large amounts of responsibility across projects involving an extensive international portfolio of power plants.



Upon completion of the graduate scheme I started the migration into my full-time role as a process engineer at the Didcot B Power Plant in Oxfordshire. Built in 1997, Didcot B is a combined cycle gas and steam turbine power plant, with a net capacity of around 1440 MW. The station has the capacity to supply approximately 1 million households with power.



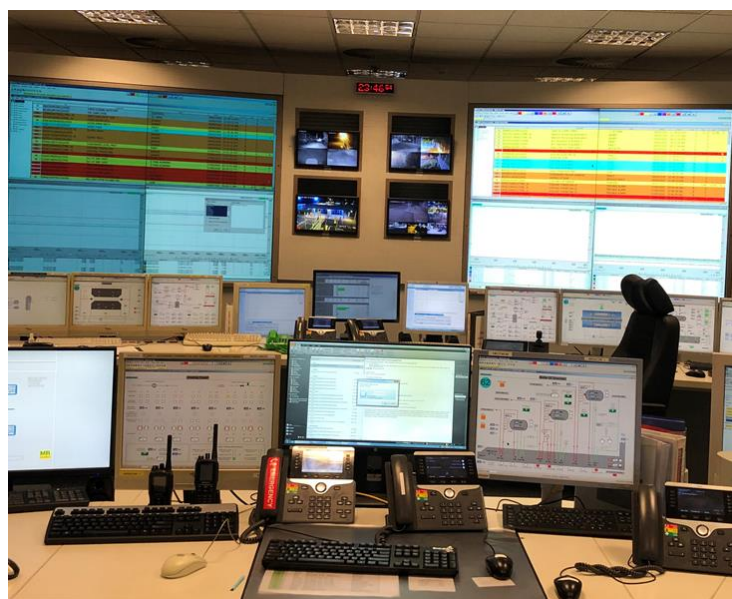
My first port of call in my role at Didcot B was to build my knowledge of how the power station generates electricity. This is best done through the looking glass and experience of a shift operations technician (SOT) and so I started my secondment in this role.



A shift operations technician is responsible for the day-to-day running of the power station. We are on the front line of electricity generation. Our responsibilities include starting up and running the units and constantly monitoring the state of the station to ensure its safe operation within strict environmental regulations. We also act as first responders for potential issues, which can be minor problems such as a blocked filter or valve not opening.

A typical day in the life of an SOT begins with the shift handover in the control room. This is the central hub of the power station which is manned 24/7, 365 days of the year. The outgoing shift pass on any updated details on current issues affecting the plant. The form this takes is in a brief handover at the start of the shift (7 a.m. or 7 p.m. depending on if you're working during the day or night shift). Once this is completed the incoming shift begin to form a view of the status of plant by systematically examining control and alarm overview screens, these are the interfaces between the operator and the physical plant. This immediately enables an overview of the station. One of the principal elements of the role often includes two-shifting the module, which means shutting the module down and then starting it back up again in a short space of time. This sounds simple enough and it can be straightforward – if everything runs smoothly. The reality is when Didcot B was built the energy market was considerably different and power stations were designed to start up and stay on for months on end. However, with the numerous changes in the energy market and the emergence of renewables, the running regime of power stations has drastically shifted. Didcot B is ensuring security of supply by operating flexibly alongside an ever-growing renewable power sector.

I feel a great deal of pride and responsibility as a key worker. Knowing you contribute to keeping the lights on during such a critical time for the nation is very fulfilling.



Working as an SOT requires physically being at the power station and being part of such a fundamental piece of infrastructure requires us to be protected. Some precautions have included reducing the number of people we come into contact with during our working day. Shift manning has been reduced so that only the minimum number of technicians required to run the power station safely is in the control room at any one time. This helps us to effectively maintain social distancing, protecting the workers as well as the business. Additionally, free access to the control room is no longer permitted and meetings between key operations staff now take place online, preventing the need for other members of staff to enter the control room unnecessarily. All of this is done in an effort to support social distancing and protect the shift operations team.

As expected, during the current situation there has been a marked change in demand for power; the closure of many businesses has resulted in a reduction in large consumers of electricity. As a result of this, our running regime has seen a drastic change. With the overall system demand being lower than normal, we're seeing reduced running even during peak times (7-9am and 4-7pm). The combination of this and the upturn in renewable generation –during a particularly bright, warm and windy spring– has meant we are not generating power as often as we ordinarily would be. A knock-on effect can result from this where the station can be called on for ancillary services such as balancing the national grid through frequency response, providing reactive power or inertia.



At RWE we are here to ensure security of supply and fundamentally to help keep the lights on. To keep the lights on, we and those close to us need to stay healthy. To stay healthy, we need to follow the guidance and stick together by staying apart.